

EAST TENNESSEE DEVELOPMENT DISTRICT



2016 Labor Education Alignment Program (LEAP 2.0)

Advanced Manufacturing in East TN Powered by the Drive to 55 LEAP Grant

East Tennessee Development District

IN PARTNERSHIP WITH

1. Higher Education Institution(s)

Tennessee College of Applied Technology Knoxville

2. LEA/School District Name

Knox County Schools: Byington-Solway, South Doyle High School; Alcoa School System; Oak Ridge School System; Blount County School System: Heritage High School, William Blount High School; Anderson County School System; Maryville City School System

3. Employer Partners

Blount County Employers - ALCOA, Cherokee Millwright, DENSO Manufacturing; Knox County Employers - BHS Corrugated, Gerdau Steel, Interstate Mechanical, Shoffner Kalthoff; Anderson County Employers - SL Tennessee, Aisin, Mag USA, 3M,

Project Director: Dwight Murphy, 1100 Liberty Street, Knoxville, TN 37919

865-546-5567

Dwight.murphy@tcatknoxville.edu

Funding requested:

\$1,000,000

Dwight E. Murphy

President/Director of Higher Education
Institution

Dwight E. Murphy

Project Director



July 25, 2016

LEAP RFP

Attn: Mr. Curt Johnston

Tennessee Higher Education Commission

404 James Robertson Parkway, Suite 1900

Nashville, TN 37243-0830

Dear Mr. Johnston:

The East Tennessee Development District (ETDD) wishes to submit a LEAP 2.0 Grant application. Our organization serves 16 counties in East Tennessee, three of which are Anderson, Knox, and Blount. We have had a long distinguished history of grant preparation and grant administration for counties, cities, schools, and other entities. Our governing board is comprised of representatives from cities, counties, state general assembly, and economic developers from across the region.

The LEAP 2.0 Grant application being submitted brings together a partnership that includes secondary school partners, TCAT Knoxville, regional industries, and economic development representatives to address the ever growing skills' gap that we are experiencing in East Tennessee. There have been several major industrial location and expansion announcements in Knox, Anderson, and Blount counties over the past three years. My staff speaks with employers on a weekly basis that needs to hire employees with Advanced Manufacturing skills but are finding it difficult to find applicants.

The LEAP 2.0 Grant application we are submitting takes a three prong approach to expanding training capacity. In the grant proposal, Advanced Manufacturing dual enrollment classes would be started at eight high schools located in the three counties—Knox, Blount, and Anderson. This funding would allow 155 students to get a jump-start on their post-secondary training or be better prepared to enter directly into the work force. The Work-Based Learning component of the grant that will be comprised of 80 intern and co-op students is a great way to get students into the workplace quicker and with skills that are needed. Local industries are supportive of Work-Based Learning partnerships. The grant will allow TCAT Knoxville to expand capacity by purchasing equipment to be installed at the new Anderson County TCAT campus. This expansion will allow more post-secondary students to get into TCAT Knoxville sooner and into the workplace quicker with the skill sets necessary.

In closing, again, the East Tennessee Development District is proud to serve as the lead entity for the LEAP 2.0 Grant and look forward to working with THEC to implement the grant once it is funded.

Sincerely,

A blue ink signature of Terry Bobrowski, Executive Director of the East Tennessee Development District.

Terry Bobrowski, Executive Director
East Tennessee Development District



TENNESSEE COLLEGE OF APPLIED TECHNOLOGY

JACKSBORO

265 Elkins Road, PO Box 419, Jacksboro, TN 37757 * (423) 566-9629 * (865) 525-3219 * Fax: (423) 566-9713 * tcatjacksboro.edu

July 21, 2016

Mr. Dwight Murphy
Director
Tennessee College of Applied Technology – Knoxville
1100 Liberty Street
Knoxville, TN 37219

Dear Mr. Murphy:

As you know, TCAT Jacksboro was selected to operate the Out-of-School Youth Contract in LWDA 4. Those counties include Anderson and Blount. In addition, many of the residents in LWDA 4 seek employment in Knox County. We are excited and totally supportive of your goals to implement manufacturing training in eight of your local high schools. Manufacturing employers in LWDA 3 and 4 have a current and future need for skilled employees.

Implementing awareness of advanced manufacturing career opportunities coupled with training in the high schools will ensure that we can meet the needs of our manufacturing community. Your LEAP 2.0 proposal will greatly enhance the ability of our region to meet the employer needs.

TCATs have a long history of working together to meet the technical training needs of our regional employers. As the vendor operating the out-of-school youth program for LWDA 4, we pledge our support and commitment to work with TCAT Knoxville to identify and support the needs of eligible out-of-school youth.

If you have any questions, please let me know.

Regards,

Debbie J. Petree
Interim Director

Table of Contents

Abstract/Project Summary	
Program Proposal	1
Section 1. Demonstrated Need	1
Localized data demonstrating the need for action	1
Clear Linkages between grant activities and local need	2
Alignment with Tennessee's Drive to 55 goals	3
Section 2. Program Plan	5
Detailed project timeline and overview	5
Clear alignment of workforce data and Drive to 55 goals	
Measurable objectives for each phase of the project	5
Project governance and accountability plan	6
Clear Justification for Equipment	6
Clear Alignment of Localized need and academic credentialing	7
Clear Plan for Employer engagement, student outcomes, and payment reporting defined in proposal	8
Section 3. Strength of Partnership	9
Detailed description of role of each partner in implementation of the project and Capabilities of each partner in ensuring project success	9
Appropriate Letters – see Attachment	
Section 4. Budget Plan	10
Budget requests detailed, justified, and accurately reflected	10
Projected Expenditures consistent with the program's stated goals	11
Section 5. Sustainability	11
Detailed plan for sustaining the program beyond the 30-month funding period	11
Detailed plan for maintaining communication and sharing resources	12
Grant Budget	13
Attachments	
A. Chambers of Commerce and Economic Development Partners	
B. Secondary Partners	
C. Industrial Partners	
D. LWDA 3, LWDA 4, etc.	

ABSTRACT/PROJECT SUMMARY

The LEAP 2.0 Grant being submitted by the East Tennessee Development District will expand capacity and address the skills' gap that is being experienced by industries in Knox, Anderson, and Blount Counties. The Grant will expand dual enrollments, open new post-secondary programs, and create a Work-Based Learning opportunity for TCAT Knoxville students.

East Tennessee Development District will partner with the Tennessee College of Applied Technology Knoxville (TCAT), eight (8) high schools, three (3) Chambers of Commerce/Economic Development Agencies, two (2) LWDAs, Adult Education, and 11 industries to assure the success of the LEAP 2.0 Grant.

The LEAP 2.0 Grant will expand capacity by purchasing Advanced Manufacturing trainers to allow TCAT Knoxville to dual enroll 155 new students in Advanced Manufacturing at eight high schools. These programs will be new at each of the high schools and will prepare the students with nationally recognized certifications, worker ethics training, and hours that will articulate into TCAT Knoxville, Pellissippi State Community College, or better prepare graduates to go directly into the workplace.

LEAP 2.0 will expand capacity by purchasing equipment for the new Welding Program and Industrial Maintenance/ Manufacturing Program at the new TCAT campus scheduled to open in January 2017 in Anderson County. If TCAT is successful in LEAP funding, the College will expand capacity by 80 post-secondary day students with the ability to also add that up to 80 full time night students. The College will also be better equipped to accommodate special industry training with the new campus and accommodate the long waiting lists in Industrial Maintenance, Machine Tool Technology, and Welding.

The third component of the LEAP 2.0 capacity expansion is the creation of a new Work-Based Learning program with TCAT Knoxville in partnership with industries from Anderson, Blount, and Knox Counties. TCAT Knoxville will partner with 11 industries to create a new Work-Based Learning program. The industries have committed to 41 co-op students and 38 intern students in the Work-Based Learning pilot with TCAT Knoxville. These industries are among the largest employers in the East Tennessee region and most or all are expanding and need more skilled labor.

The LEAP 2.0 will not only allow TCAT Knoxville to expand capacity and improve placements, it will allow the College to offer secondary and post-secondary students more industry and nationally recognized credentials. Students would be OSHA-10 certified, NC3 certified, and Forklift certified. One of the largest changes that would be implemented is that all students would have Worker Ethics certification upon completion of a program. Worker Ethics training is something that all of the TCAT Knoxville industrial partners want included in post-secondary training.

PROGRAM PROPOSAL

SECTION 1. DEMONSTRATED NEED

Localized Data Demonstrating the Need for Action

Localized data clearly indicates a need of expansion in Advanced Manufacturing training in Knox, Anderson, and Blount Counties.

- *Tennessee Hot Careers to 2022* identifies Electricians; First Line Supervisors of Mechanics, Installers, and Repairs; Industrial Machinery Mechanics; Machinists; Maintenance and Repair Workers, General, all to be in high demand. www.Jobs4tn.gov/
- LWIA 3: (Knox County) *Hot Careers to 2022* identifies Maintenance and Repair Workers, General; Electricians; and Supervisors of Mechanics, Installers, and Repairers, to be in high demand. www.Jobs4th.gov/
- LWIA 4: (Blount and Anderson Counties) *Hot Careers 2022* identifies Team Assemblers; Maintenance and Repair Workers, General; Electricians; Machinists; Industrial Machinery Mechanics, to be in high demand. www.Jobs4th.gov/
- “Advanced manufacturing job creating in Tennessee far outpaces national growth at 27.1% job growth in Tennessee compared to 8.7% national from 2010 to 2015.” Advanced Manufacturing at <http://www.tnecd.com/industries/advance-manufacturing/>

Local economic development agencies and industries in Knox, Anderson, and Blount Counties are finding it difficult to find significant numbers of employees with skill sets to meet their labor needs. There have been major plant expansions and new plant locations in Anderson, Knox, and Blount Counties over the past three years. Anderson County officials have stated there is a need for an additional 2,000 employees in their county alone to keep pace with the expansions and new locations. Alcoa Aluminum Company of America (ALCOA) and Denso Manufacturing (two major employers in Blount County) have both announced major expansions over the past two years. While the available data recognizes a need, our research is finding the need for skilled employees is far understated and there is a major skills’ gap in Anderson, Knox, and Blount Counties and a huge demand for employees with Advance Manufacturing skills. The Tennessee College of Applied Technology Knoxville (TCAT) is the

primary technical trainer for Blount, Anderson, and Knox Counties. According to the 2013 census, the population base for Knox County was 444,622; Anderson County 75,542; and Blount County 125,099 for a total population of 645,263 in the three-county region.

The Tennessee College of Applied Technology Knoxville (TCAT) is at full capacity in both our day and night programs. The College has opened off campus post-secondary full time programs at Oak Ridge High School, Anderson County Career and Technical Center, and Pellissippi State Community College Strawberry Plains Campus to assist with the long waiting lists. With the addition of night programs and satellite campuses, TCAT Knoxville presently has a total of 791 students on the waiting lists for all programs. The College is providing special industry apprenticeship training for DENSO Manufacturing, Alcoa Aluminum Company of America (ALCOA), Shoffner Kalthoff, Cherokee Millwright, Gerdau Steel, and Eagle Bend Manufacturing with more industries wanting incumbent workers trained but the College does not have the capacity to handle additional students. Since the implementation of the Tennessee Reconnect and the Tennessee Promise, enrollment at TCAT Knoxville has increased by 139% and we expect an even greater increase going forward.

Clear Linkages between Grant Activities and Local Needs

The Grant will be used to purchase Advanced Manufacturing “suitcase trainers” to be placed in eight high schools where TCAT will offer dual enroll Advance Manufacturing classes. The high school trainers will be compatible with what is used at the TCAT post-secondary Industrial Maintenance/ Mechatronics Program and equipment being used by the major manufacturers in Anderson, Knox, and Blount Counties. Students in the Advanced Manufacturing secondary class will be able to gain up to 432 dual enrollment hours with TCAT Knoxville, transfer hours to Pellissippi State Community College, and be better prepared to enter the work force. The high school dual enrolled students will receive industry recognized certifications in OSHA-10, Forklift Operation, Certified Production Technician, and NC3. All dual enrollment students will have industry recognized Worker Ethics training and receive a certificate.

The trainers purchased with LEAP 2.0 funds and placed at the eight high schools will expand TCAT Knoxville dual enrollments by 155 new students with skill sets that have been identified as needed by employers in Knox, Anderson, and Blount Counties.

The Grant will purchase welding and industrial maintenance trainers to be placed at the new TCAT Anderson County campus. The new campus will also offer Machine Tool Technology and have a designated space for Special Industry Training. Presently TCAT Knoxville is at capacity in Welding (with five full time post-secondary programs); Machine Tool (with full time night and day programs); Industrial Maintenance/Mechatronics (with full time day and night programs), and no additional capacity for the additional Special Industry Training. The trainers purchased with the LEAP 2.0 Grant and placed at the new Anderson County campus will expand post-secondary enrollments by 80 day students with the potential of up to 80 night post-secondary students. The training offered at the new center will mirror what is offered on the main campus and has the full support of the local industrial and economic development boards. The trainers at the new Anderson County campus will also allow TCAT Knoxville to expand special industry training capacity.

TCAT Knoxville is partnering with 11 industries in Anderson, Knox, and Blount Counties to offer 41 internship opportunities and 38 co-op opportunities for TCAT Knoxville students for a new Work-Based Learning (WBL) program that would be a result of the LEAP 2.0 fund. The LEAP 2.0 Grant will reimburse the partnering industries up to \$1,500 per participant. LWDA 3 and LWDA 4 have agreed to also offer OJT contracts to eligible participants. The expansion of Work-Based Learning, new post-secondary training slots, and expanded dual enrollments clearly addresses the local needs for Advanced Manufacturing skills.

Alignment with Tennessee Drive to 55 Goals

TCAT Knoxville has established that there is a large skills' gap and a need in the East Tennessee region for training in Advanced Manufacturing. The College proposes to help fill this skills' gap by:

1. Opening new dual enrolled secondary Advanced Manufacturing classes at eight high schools.

High Schools	No. of Dual Enrollees
Alcoa High School	15
Heritage High School	20
William Blount High School	20
Maryville High School	20
Anderson Count Career & Technical	20
Oak Ridge High School	20
Byington-Solway Technical Center	20
South Doyle High School	20
Total New Dual Enrollees	155

NOTE: See attached commitment letters.

2. Opening a new campus in Anderson County with four new programs.

Programs	No. of Students
Machine Tool Technology	20
Industrial Maintenance/Mechatronics	20
Welding	20
Special Industry Training	20
Total New Post-Secondary Students	80

NOTE: With potential to add 80 more with the addition of a night program.

3. Create a Work-Based Learning Program with local industries.

Industry	Co-op	Interns
Aisin	10	10
BHS Corrugated	2	2
Cherokee Millwright	10	5
Interstate Mechanical	5	5
MAG USA	2	4
Shoffner Kalthoff	2	2
SL Tennessee	10	10
3M		
Total	41	38

NOTE: See attached commitment letters

SECTION 2. PROGRAM PLAN

Detailed Project Timeline and Overview

Jan – Mar 2017	Apr – June 2017	July – Sept 2017	Oct – Dec 2017	Jan – Mar 2018	Apr – June 2018	July – Sept 2018	Oct – Dec 2018	Jan – Mar 2019	Apr – June 2019
<ul style="list-style-type: none"> • Grant Awarded • Advertise for Project Coordinator or Project Co-Directors coordinate initial grant activities 	<ul style="list-style-type: none"> • Initial Steering Committee Meeting • Hire Project Coordinator • Initiate equipment purchases • Develop work ethics component • Market Advanced Manufacturing grant activities • Enroll dual enrolled students 	<ul style="list-style-type: none"> • Launch Worker Ethics component • Quarterly Steering Committee Meetings • Develop tracking system • Enroll dual enrolled students • Establish WBL opportunities 	<ul style="list-style-type: none"> • Quarterly Steering Committee Meetings • Compile report for completion, WBLs, etc. • Industry tours • Enroll dual enrolled students • Establish WBL opportunities 	<ul style="list-style-type: none"> • Quarterly Steering Committee Meetings • Compile report for completion, WBLs, etc. • Industry tours • Enroll dual enrolled students • Establish WBL opportunities 	<ul style="list-style-type: none"> • Quarterly Steering Committee Meetings • Compile report for completion, WBLs, etc. • Industry tours • Enroll dual enrolled students • Establish WBL opportunities 	<ul style="list-style-type: none"> • Quarterly Steering Committee Meetings • Compile report for completion, WBLs, etc. • Industry tours • Enroll dual enrolled students • Establish WBL opportunities 	<ul style="list-style-type: none"> • Quarterly Steering Committee Meetings • Compile report for completion, WBLs, etc. • Industry tours • Enroll dual enrolled students • Establish WBL opportunities 	<ul style="list-style-type: none"> • Quarterly Steering Committee Meetings • Compile report for completion, WBLs, etc. • Industry tours • Enroll dual enrolled students • Establish WBL opportunities 	<ul style="list-style-type: none"> • Quarterly Steering Committee Meetings • Compile report for completion, WBLs, etc. • Industry tours • Establish WBL opportunities

Measurable Objectives for each Phase of the Project

TCAT Knoxville will dual enroll 155 students in Advanced Manufacturing programs at 8 area high schools. They will receive a Worker Ethics certificate, NC3 certification, OSHA-10 certification, and Forklift certifications and 432 hours from their post-secondary program.

TCAT Knoxville will enroll 80 post-secondary students in Welding, Machine Tool Technology, Industrial Maintenance/Mechatronics, and Special Industry training at the new TCAT Anderson County Campus opening in January 2017. All students would receive a Worker Ethics certificate, OSHA-10 certification, NC3 certification, and Forklift certification.

TCAT Knoxville will have 80 paid Work-Based Learning (WBL) opportunities as a result of LEAP 2.0 funding. TCAT Knoxville has commitments for 11 industries to participate with a new Work-Based Learning component.

Project Governance and Accountability Plan

The steering committee that will be appointed to oversee the grant will have representatives from the East Tennessee Development District, the advisory boards of TCAT Knoxville programs, and the Chambers of Commerce or Economic Boards of Anderson, Knox, and Blount Counties. Each of the eight partnering high schools will have a member on the steering committee and there will be at least four industrial partners' representatives. The steering committee will meet monthly during the planning and implementation phase. The initial meetings will be to establish the criteria for the internships, co-ops, and curriculum for the eight high school Advanced Manufacturing classes. The steering committee along with TCAT advisory boards will work to select the appropriate equipment for the eight high school programs and the welding and industrial trainers that will be placed at the new Anderson County campus. The full steering committee will meet quarterly with the executive committee meeting monthly. Monthly progress reports will be provided by the project coordinator to the TCAT Director as well as all members of the steering committee.

Clear Justification for Equipment

The Tennessee College of Applied Technology Knoxville is at full capacity, even after the implementation of night programs and satellite campuses at Pellissippi State Community College Strawberry Plains, Oak Ridge High School, South Doyle High School, and Anderson County Career and Technical Center. The College has 791 students on the waiting lists. TCAT Knoxville has continued to have excellent placements of our graduates even with the expanded capacity.

Presently, the college is doing special industry training for some of the largest manufacturers in the region. These include Alcoa Aluminum Company of America (ALCOA), Cherokee Millwright, Gerdau Steel, Denso, Shoffner Kalthoff, and Eagle Bend Manufacturing. There is a demand from other industries to do incumbent worker training, but TCAT Knoxville is at capacity. The College operates from 7:30 a.m. to 10:30 p.m. four nights a week, and 7:30 a.m. to 4 p.m. on Fridays in an effort to accommodate the

demand, but cannot meet the needs without expanding capacity by adding programs at the new Anderson County campus and at the area high schools. The College must expand capacity to take care of the industry demand in this region.

TCAT Knoxville is seeking \$430,000 to purchase Welding trainers and Industrial Maintenance/Mechatronics trainers to be placed at the new Anderson County TCAT satellite that is scheduled to open in January 2017. Of the request, \$130,000 would be to purchase Welding equipment needed to equip a new program. The Industrial Maintenance/Mechatronics program at the new campus would get \$300,000 of the LEAP 2.0 funding to purchase trainers that are compatible with what are used at the main campus, in high school Advanced Manufacturing classes, and at our industrial partners.

TCAT Knoxville is requesting \$400,000 of the LEAP 2.0 as funding to buy “suitcase” trainers that will be placed at each of the eight high school partners—Alcoa, William Blount, Heritage, Maryville, Oak Ridge, Anderson County Career and Technical Center, South Doyle High School, Byington-Solway. The trainers will allow the College to implement new Advanced Manufacturing classes at each of the eight high schools and dual enroll 155 new students.

Clear Alignment of Localized Need and Academic Credentialing

In the preparation of this grant application, TCAT Administration met with all eight partnering high schools to determine the need for Advanced Manufacturing training at the high school level. The College representatives also met with 20 of the major industries in Knox, Anderson, and Blount Counties to discuss their employment needs. We met with the Economic Boards and Chamber offices from all three counties to determine the employment needs they are seeing as a result of plant expansions and new locations. While surveying the industries, school systems, and Economic Development representatives, the College found there are major industrial expansions either ongoing or planned for the three-county region. There is a huge unmet demand for skilled labor in Advanced Manufacturing. It was also identified that Worker Ethics was a much needed component for

new hires. Industries were excited that the LEAP 2.0 Grant would allow TCAT to offer Worker Ethics certification as well as certifications in OSHA-10 safety, NC3, and Forklift Operation.

As a result of this funding, TCAT Knoxville will implement a new Work-Based Learning (WBL) program that will help fill the “skills pipeline”. Employers were excited about the potential paid Work-Based Learning co-ops and internships. Eleven industries have committed to be part of the LEAP 2.0 funded WBL portion of the Grant. TCAT Knoxville has 41 intern and 38 co-op commitments (see Letters).

Clear Plan for Employer Engagement, Student Outcomes, and Payment Reporting Defined in Proposal

The Tennessee College of Applied Technology is seeking \$120,000 of LEAP 2.0 funding to initiate a Work-Based Learning program. The initial pilot program would consist of 41 intern and 38 co-op students. The College has the following industries committed to participating in the Work-Based Learning pilot: Cherokee Millwright, Denso Manufacturing, BHS Corrugated, Gerdau Steel, Interstate Mechanical, Shoffner Kalthoff, SL Tennessee, Aisin, Mag USA, 3M.

The 11 industries that have committed understand the students that participate will be a minimum of eight weeks of Work-Based Learning. They will be reimbursed up to 50% of the student’s wages up to \$1,500 for the Work-Based Learning experience. The industries are committed to helping implement the WBL program and assure its success.

The LEAP 2.0 coordinator funded by the grant will be responsible for all reporting including employer engagement, student outcomes, and payment reporting. The coordinator will have the responsibility of meeting with participating industries and providing all of the documentation, as well as assisting industries with setting up interviews with Work-Based Learning participating students. The coordinator will keep frequent checks with the industries as to progress. He/she will coordinate between the industry, student, and the program TCAT instructor. It will also be their responsibility to keep up with student outcomes. The coordinator will make sure industries are reimbursed for their Work-Based Learning participation in a timely manner.

SECTION 3. STRENGTH OF PARTNERSHIP

Detailed Description of Role of each Partner in Implementation of the Project and Capabilities of each Partner in Ensuring Project Success Adequately Described

East Tennessee Development District – Lead Entity. The East Tennessee Development District has many years of experience in helping counties, cities, and other entities write and administer grants. Their team understands the economic development and growth of the 16 counties they serve. The organization knows the skill's gap and employee hiring challenges industries are facing. Blount, Knox, and Anderson Counties are all members of the ETDD.

Tennessee College of Applied Technology Knoxville – Fiscal Agent. The Administration at TCAT Knoxville oversees more than 30 programs on five different campuses. The College has had the largest percentage growth (139%) of any of the 27 TCATS over the past two years. The Director and administration has experience in securing and overseeing industrial, state, and federal grants. Most recently, TCAT Knoxville has taken oversight of the 1.8 million dollar Adult Education Programs in the 16-county region. The College has recently received notice that it has been successful in securing a \$50,000 federal USDA Grant for Advanced Manufacturing trainers for the new Anderson County TCAT. In addition, TCAT Knoxville recently wrote and received a \$75,000 ALCOA Foundation Grant to purchase Advanced Manufacturing hydraulics and pneumatics trainers.

Tennessee College of Applied Technology Knoxville has a full time secondary counselor. She will oversee the 155 new dual enrollees that would result because of LEAP 2.0 funding. She already visits all of our high school partners regularly and will continue this process.

The steering committee will be instrumental in the implementation and oversight of the grant. The full committee will meet quarterly after the startup, but an executive committee of the board will continue to meet monthly during the entire grant period. The steering committee will be representative of all the partners in the LEAP 2.0 Grant.

TCAT will hire an experienced coordinator to assist not only in the implementation, but assure that the project functions on a day-to-day basis. This person will be responsible to assure all reporting is done in a timely fashion and there is coordination between TCAT, industrial partners, secondary partners, and intern and co-op work-based learning participants.

Appropriate Letters Provided. Please see letters in Attachment

SECTION 4. BUDGET PLAN

Budget Requests Detailed, Justified, and Accurately Reflected

Budget Project Details

\$400,000 to purchase Advanced Manufacturing “suitcase” trainers to accommodate instruction in PLCs, pneumatics, hydraulics, robotics trainers. \$50,000 to each of the eight high school locations—William Blount High School, Heritage High School, Maryville High, Alcoa High, South Doyle High School, Byington-Solway Technical Center, Anderson County Career and Technical Center, Oak Ridge High School. Results will be 155 new dual enrollment TCAT Knoxville students.

\$300,000 to purchase trainers to open a new Industrial Maintenance/Mechatronics program at Anderson County TCAT site. TCAT has a USDA Grant for \$50,000 to supplement the LEAP 2.0 Grant. This will allow the day enrolled 20 post-secondary students and the potential of 20 post-secondary night students once the program is implemented.

\$130,000 to purchase welders and buy equipment for a new post-secondary welding program for the Anderson County TCAT campus. This will allow the College to enroll 20 new post-secondary day students and the potential of adding 20 new post-secondary students at night. Presently, TCAT Knoxville has five full time post-secondary welding programs and 130 on the College waiting list.

\$120,000 for a new Work-Based Learning Program. TCAT Knoxville has commitments for 41 internships and 38 co-op opportunities at 11 regional industrial partners.

\$50,000 for project coordinator. This person will be responsible to coordinate with the steering committee, oversee the bid prices for equipment, meet with industrial partners on interns and co-op students, and develop the criteria for the program. Total Request \$1,000,000.

Projected Expenditures Consistent with the Program's Stated Goals

The LEAP 2.0 Grant proposal will *"enhance, expand and/or acquire equipment to create an academic program at an institution of higher education that fuels a central and local workforce"*.

The LEAP 2.0 funding will purchase "suitcase" trainers to allow eight high schools to offer new Advanced Manufacturing programs that will result in 155 new dual enrolled opportunities that do not presently exist in Blount, Anderson, and Knox Counties. The LEAP 2.0 funding will allow TCAT Knoxville to expand post-secondary enrollments by at least 80 students by purchasing trainers for the new TCAT Anderson County campus.

The LEAP 2.0 Grant proposal will *"develop and implement collaborative, meaningful, and sustained work-based learning (WBL) programs that incent industry partner to develop co-ops and internships that prepare students for rapid entry into the workforce for industry sectors facing a demonstrable shortage of skilled workers"*.

The LEAP 2.0 will create 41 new interns and 38 new co-op paid Work-Based Learning opportunities for TCAT Knoxville students. TCAT has 11 industries that have committed to the work-based learning component with more industries interested in participating after the program is begun.

SECTION 5. SUSTAINABILITY

Detailed Plan for Sustaining the Program beyond the Thirty (30) Month Funding Period

\$400,000 of the LEAP 2.0 funding will be used for Advanced Manufacturing "suitcase" trainers that will be placed at eight high schools. This is a one-time purchase. The trainers will generate a minimum of \$93,000 of revenue per year as a result of 155 new dual enrolled students.

\$330,000 of the LEAP 2.0 funding will be used to purchase Welding and Industrial Maintenance/Mechatronics trainers to be placed at the new Anderson County TCAT campus.

This equipment will have at least a 10-20 year life expectancy. The LEAP 2.0 equipment with the Machine Tool equipment and special industry trainers will generate approximately \$290,000 from student tuition with the expanded capacity generated by the new campus. This revenue will double if TCAT Knoxville has to open night programs to take care of capacity issues.

Industries have indicated support of the Work-Based Learning component and want to partner with TCAT students even if one-half of the salaries were not reimbursed by Grant funds. LWDA 3 and LWDA 4 have agreed to partner and fund 16 OJTs.

Detailed Plan for Maintaining Communication and Sharing Resources

The project coordinator will be responsible to assemble the steering committee (or the executive board) on a monthly basis. The TCAT high school counselor will enroll and track the new dual enrolled students on a regular basis. Weekly emails will be sent from the coordinator to all of the partners to assure all parties are aware of what is occurring. The eight high school partners are providing training space for the new Advanced Manufacturing programs at no cost to TCAT Knoxville. TCAT Knoxville is not charging any administrative fees to assure the maximum grant dollars are used to purchase training equipment and support the work-based learning component. The college is provided rent free space at the new TCAT Anderson County space and local industries have committed to \$300,000 to retrofit the center. Industries have also committed to provide training equipment for the secondary and post-secondary programs.

APPENDIX B - Budget

GRANT BUDGET				
LEAP Program Competitive Grant				
The grant budget line-item amounts below shall be applicable only to expenses incurred during the Following				
Applicable Period: BEGIN: September 14, 2016 END: March 13, 2019				
POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY ¹	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1,2	Salaries, Benefits & Taxes	50,000.00	20,000.00	70,000.00
4, 15	Professional Fee, Grant & Award	120,000.00	0.00	120,000.00
5, 6, 7, 8, 9, 10	Supplies, Telephone, Postage & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications	0.00	8,000.00	8,000.00
11, 12	Travel, Conferences & Meetings	0.00	3,000.00	3,000.00
18	Other Non-Personnel ²	0.00	0.00	0.00
20	Capital Purchase ²	830,000.00	168,000.00	998,000.00
22	Indirect Cost	0.00	0.00	0.00
24	In-Kind Expense	0.00	0.00	0.00
25	GRAND TOTAL	1,000,000.00	199,000.00	1,199,000.00

¹ Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, *Uniform Reporting Requirements and Cost Allocation Plans for Subrecipients of Federal and State Grant Monies, Appendix A.* (posted on the Internet at: www.state.tn.us/finance/act/documents/policye.pdf).

² Applicable detail follows this page if line-item if funded.



KNOXVILLE CHAMBER

17 Market Square, #201
Knoxville, TN 37902-1405

865.637.4550 ☎

865.523.2071 📞

www.knoxvillechamber.com 🌐

Knoxville Chamber 📌

@K_chamber 📱

July 5, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

The Knoxville Chamber of Commerce is in full support of the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville.

The Chamber has identified a growing need for regional industries for employees with the knowledge of PLCs, robotics, pneumatics and hydraulics. In our discussion with our employers, we found that the Worker Ethics curriculum that would be taught to all students is a critical need by employers today. The OSHA 10 Certification as well as other national certifications that is part of the Industrial Maintenance/ Mechatronics curriculum makes people much more employable and costs companies less in new employee training.

The Advanced Manufacturing "suitcase trainers" funded by this grant would allow new dual enrollment opportunities at South Doyle and Byington-Solway. The fact that the training received by the juniors and seniors will articulate to TCAT Knoxville and a community college makes the program very valuable. We understand these two schools are only a pilot and it is your college's intention to expand into more of the Knoxville high schools in the coming years. This program provides a pipeline of skilled employees for local companies. The Chamber staff will work with local industries to develop OJTs, internships, and co-op opportunities that you have outlined in the work based learning portion of the grant. We will also be happy to have a representative on the grant steering committee.

In closing, again, I would like to restate that the LEAP 2.0 Grant application being submitted has the full support of the Knoxville Chamber of Commerce.

Sincerely,

Michael Edwards
President & CEO
Knoxville Chamber





Blount Partnership

July 21, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Director Murphy:

The Blount Partnership wishes to partner and support the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville.

We are actively working with Pellissippi State Community College, TCAT Knoxville, and the school systems located in Blount County. The Partnership is helping facilitate the expansion of training opportunities that would be seamless from the high school level to TCAT Knoxville to an associate's degree at Pellissippi State Community College.

Our model seeks to replicate what is being done on the Pellissippi Strawberry Plains Campus. The LEAP 2.0 Grant would fund trainers that would allow TCAT Knoxville to offer dual enrollment Advanced Manufacturing classes at William Blount, Heritage, Alcoa, and Maryville High Schools. This expands capacity and helps meet the goal of "Drive to 55". TCAT Knoxville will use Grant funds to place "suitcase trainers" into each of the four high schools that will provide training in PLCs, robotics, pneumatics, and hydraulics. The fact that dual enrolled students will have the opportunity to receive nationally recognized certifications in OSHA 10, NC3, Certified Production Technician, and forklift training will make our students much more college and/or career ready. The Blount Partnership is committed to help with the implementation of the Grant once it is funded. We will work with TCAT Knoxville to establish the work based learning component for interns and co-op students with our local industries.

In closing, I would like to again say we support the LEAP 2.0 Grant being submitted and believe it fully fits into the future training program that is being developed with all of the partners in Blount County and will help expand capacity and meet the goals of the "Drive to 55" initiative.

Sincerely,



Bryan Daniels
President & CEO
Blount Partnership



ANDERSON COUNTY GOVERNMENT

TERRY FRANK
COUNTY MAYOR

July 5, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy,

The LEAP 2.0 Grant application being submitted has the full support of Anderson County Government. I have attached a resolution for \$500,000 Anderson County Government commitment for the development of the new Tennessee College of Applied Technology to be constructed in Clinton. Our industrial base is growing with the location of new industries as well as expansion of existing industries.

The new TCAT Anderson County will help fill the skills gap for the 2,000 additional employees that are needed by the industries in our area. The fact that one-third of the present TCAT Knoxville students are from Anderson County and your College has long waiting lists, the Anderson County campus is critical for the development of the workforce for our region. The money requested in this grant for the Industrial Maintenance/Mechatronics trainers and the compatible equipment requested for Anderson County Career and Technical Center and Oak Ridge High School will prepare both secondary as well as post-secondary students for the high-skilled jobs now available in our region. I am happy to be on the grant steering committee once it is funded.

If you have questions, please feel free to contact me.

Sincerely,

Mrs. Terry Frank
Anderson County Mayor



July 19, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

The Anderson County Economic Development Board and Anderson County Chamber of Commerce are happy to partner on the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. Anderson County is outpacing the state and nation in new manufacturing jobs. Our employers need skilled employees and are finding it very difficult to find them.

Our Boards are committed to the development of the new temporary Tennessee College of Applied Technology Anderson County Campus that is scheduled to open in January 2017. We are also committed to the development of a permanent Anderson County campus. Our County Commission and local industries have committed \$300,000 in cash and in-kind labor to retrofit the space. The Industrial Maintenance/ Mechatronics equipment that would be furnished is a result of the LEAP 2.0 Grant is skills' training that is desperately needed by the entire industrial community. The fact that the grant will add dual enrolled Advanced Manufacturing classes at the Anderson County Career and Technical Center and Oak Ridge High School has the full support of our organizations as well as the local industries. The TCAT Knoxville's waiting list is long and cannot accommodate the demand in our region without adding additional capacity and more training equipment. The LEAP 2.0 grant is essential to helping fill the skills' gap we are experiencing in Anderson County.

TCAT Knoxville does not have the capacity to enroll the Anderson County people wishing to enroll. We have the available jobs but cannot get the training done quickly enough. This new TCAT College in Anderson County will help fill this critical need. We are committed to assist TCAT Knoxville in identifying and placing the interns and co-op students in their work based learning opportunities in Anderson County.

Sincerely,

A handwritten signature in black ink that reads "Tim Thompson". The signature is written in a cursive style.

Tim Thompson, President
Anderson County Economic Development Association



OAK RIDGE SCHOOLS
304 NEW YORK AVE.
P.O. BOX 6588
OAK RIDGE, TN 37831-6588

Telephone: 865.425.9001
Fax: 865.425.9070

Dr. Bruce T. Borchers
Superintendent
Email: btborchers@ortn.edu

July 13, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

The Oak Ridge School System wishes to offer our support for the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville.

The Advanced Manufacturing trainers that would be purchased with the Grant and placed at our high school are compatible with the equipment used by the local manufacturers in Anderson County. We are excited about the possibility of offering Industrial Maintenance/Mechatronics as a dual enrollment class, and our students articulating their high school hours to a TCAT Knoxville or to a community college. We also like the curriculum in the fact that it provides nationally recognized certifications in Certified Production Technician, OSHA 10, and NC3.

In closing, we expect to dual enroll 20 students within the first year after the LEAP 2.0 Grant is funded. This number could grow to 40 students per semester after the initial pilot. Local industries are excited about internship opportunities for students enrolled in the Industrial Maintenance/Mechatronics program. We fully expect this program to be as successful as our dual enrolled Welding program started two years ago with TCAT Knoxville and the Automotive Technology program scheduled to begin this fall. Our staff will work to assist in the development of the internship program for our students. We are also more than happy to sit on your steering committee to oversee the grant.

If you have questions, please feel free to contact me.

Sincerely,

Bruce T. Borchers, Ph.D.
Superintendent

BTB/II



Director of Schools

Mike Winstead, Ph.D.

mike.winstead@maryville-schools.org

833 Lawrence Avenue, Maryville, Tennessee 37803-4857

Tel (865) 982-7121 || Fax (865) 977-5055

Assistant Director of Schools

Rick Wilson, Ed.S.

rick.wilson@maryville-schools.org

July 5, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Director Murphy:

The Maryville City School System wishes to take this opportunity to support the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. This grant will allow your College to offer dual enrollment classes in Advanced Manufacturing at Maryville High School for the first time. Blount County is seeing an explosion in economic growth not only from our major employers such as ALCOA and Denso, but also smaller employers. The ability for our students to receive college credit and be provided the skills' training to go into these high paid manufacturing jobs is of great value.

We support the fact that our students will have the opportunity to receive nationally recognized certifications in OSHA 10, NC3, forklift, and Certified Production Technician, and also be trained in Worker Ethics. The work based learning component that will provide internship opportunities will be a great incentive for students to enroll in the Advanced Manufacturing dual enrolled program. We would anticipate dual enrolling at least 20 juniors and seniors within a 24-month period once the funding is acquired.

Again, thank you for providing this opportunity to Maryville High School Students.

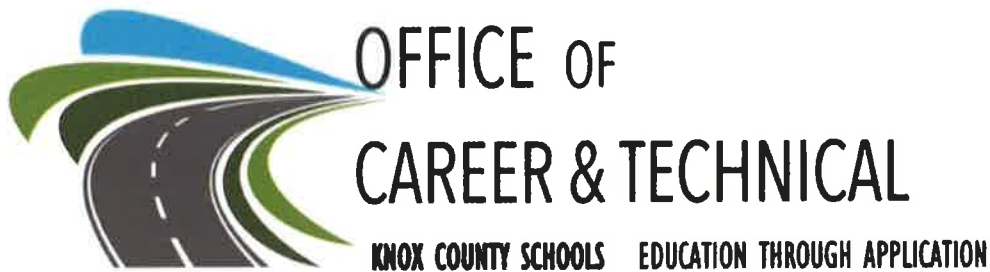
Best regards,

Mike Winstead, Director

www.maryville-schools.org

Maryville Board of Education

Doug Jenkins, Chairman Bethany Pope, Vice-Chairman Candy Morgan, Secretary Christy Sayles, Member Bob Proffitt, Member



June 16, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Director Murphy:

Knox County Schools fully support the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville.

The Advanced Manufacturing "trainers" would be purchased by the grant and placed at our Byington-Solway campus. This campus serves students from all across Knox County. The fact that dual enrolled hours earned in the Industrial Maintenance/ Mechatronics program at Byington-Solway will transfer to the post-secondary programs at TCAT Knoxville and Pellissippi State Community College is very beneficial to Knox County students. The 'trainers' that will be purchased with the LEAP 2.0 funds will also allow our students to get their nationally recognized CPT, OSHA 10, and NC3 certifications.

This grant will allow Knox County students a new CTE opportunity that will prepare them for the high-demand, high-skill, and high-wage job opportunities that are in our region. Knox County schools and TCAT Knoxville already have dual enrolled students in other programs and could implement a secondary Industrial Maintenance/Mechatronics program at Byington-Solway almost immediately upon receipt of the "trainers". We would dual enroll 20 secondary students into the Industrial Maintenance/ Mechatronics program within 24 months after the LEAP 2.0 is funded. We also fully support the development of internships for our students working in local industries if the grant is funded. Our counselors will assist in identifying and placing interns with our regional industries.

We are happy to provide a representative to sit on the steering committee to administer the grant. If you have questions, please do not hesitate to contact me.

Best regards,

C. Don Lawson, Director
Knox County Schools Career & Technical Education
Phone (865) 281-2602
535 Chickamauga Ave
Knoxville, TN 37917

Director of Schools

Rob Britt

831 Grandview Drive
Maryville, TN 37803
(865) 984-1212
Fax: (865) 980-1002



Board of Education

James Compton
Charles Finley
Trevis D. Gardner
Fred Goins
Scott Helton
Bill Padgett
Debbie Sudhoff

~Educational Excellence For All Students~

July 15, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Director Murphy:

I would like to offer the enthusiastic support of the Blount County School System for the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. We are happy to partner with your college as you work to develop a pipeline of skilled employees for local industries.

The Advanced Manufacturing/Mechatronics equipment that will be purchased by the grant and placed at Heritage and William Blount High Schools will allow us to expand dual enrollment opportunities for our students in a field of study that will prepare them to go to work for Blount County companies such as DENSO, ALCOA, and Cherokee Millwright. Students enrolled in the new Industrial Maintenance/ Mechatronics course offered on our campus as a result of the LEAP 2.0 Grant equipment will allow our students to articulate hours into the TCAT post-secondary program, Pellissippi State Community College, or go directly to work at one of our local manufacturing facilities. This grant will allow us to better prepare our students and parents to understand the large demand for employees to have skill-trained employees.

We especially like that our dual enrolled students will not only be able to articulate hours to TCAT Knoxville and a community college, but that they would acquire industry recognized certifications in OSHA 10, NC3, and Certified Production Technician. These certifications assist students as they seek employment opportunities. The worker ethics portion of the curriculum is also of great interest to our administration.

We project that we would dual enroll 20 students each in the first class after the equipment is installed at both Heritage High School and William Blount High School. This number could easily rise to 40 students enrolled in the following semesters. We will work with your staff on internship opportunities for our dual enrolled students with local Blount County industries.

Please feel free to contact me if there are questions.

Best regards,

Mr. Rob Britt
Director of Schools

~Uncompromising Educational Service~



Office of the Director of Schools
101 South Main Street, Suite 501
Clinton, Tennessee 37716
Office: (865) 463-2800, x 2801
Fax: (865) 457-9157

Dr. Tim Parrott, Director

June 16, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

The Anderson County School System is in full support of the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. We are excited to have the grant funded equipment on our campus to allow Anderson County Career and Technical Center to dual enroll students in your post-secondary Industrial Maintenance/Mechatronics program.

The "trainers" you are seeking with this grant will be very compatible with what our large local industries are using in their manufacturing processes. Anderson County students that dual enroll will have the opportunity to gain much needed skills in PLCs, robotics, pneumatics, and hydraulics. The curriculum being offered by TCAT Knoxville will also allow the dual enrolled students to earn nationally recognized certifications in Certified Production Technician, OSHA 10, and NC3 and worker ethics training.

We would expect to dual enroll 20+ students within the first year after the equipment is purchased. This number has the potential to grow to 40+ dual enrolled students over time. We already have all of the necessary agreements in place to begin the program immediately and articulate hours in the TCAT Knoxville post-secondary programs. Local industries have also expressed interest in the internships for our students that you have outlined in your grant proposal. Our counselors will work with the grant administrator to establish these intern opportunities

Again, the Anderson County School System fully supports the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. If you have questions, please feel free to contact me.

Sincerely,

Dr. Tim Parrott
Anderson County Director of Schools



ALCOA CITY SCHOOLS GRADUATING COMPETITIVE STUDENTS

BUILDING RELATIONSHIPS
RIGOROUS EXPECTATIONS
RELEVANT INSTRUCTION

524 FARADAY STREET
ALCOA, TENNESSEE 37701
(865) 984-0531
FAX (865) 984-5832

BRIAN BELL, Ed.D.
DIRECTOR OF SCHOOLS

June 16, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

Alcoa School Systems is pleased to partner with the Tennessee College of Applied Technology Knoxville and the LEAP 2.0 Grant. This grant will allow our system to expand our CTE course offerings to include Industrial Maintenance/Mechatronics dual enrollment with your college.

We are pleased with the fact that the Tennessee College of Applied Technology Knoxville will dual enroll our students in a course offered on our campus that will articulate hours into the Industrial Maintenance/Mechatronics program at your college and also transfer hours into the Mississippi State Community College program. We would anticipate at least 15 students will dual enroll in the first full year the course is offered on our campus. We are excited that our dual enrolled students will receive Certified Production Technician, OSHA 10, and NC3 nationally recognized certifications. We also are supportive of the worker ethics portion of the curriculum being recommended.

In closing, we want to offer our full support for the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. We are excited to get the Advanced Manufacturing "trainers" that will be purchased with this grant and the opportunity to better prepare our students to go into high-wage, high-demand manufacturing jobs. Our counselors will help the grant coordinator identify and place our dual enrolled students in internships with local industries. We will also be happy to provide representation on the grant steering committee.

If you have questions please feel free to contact me.

Best Regards,

Brian Bell, Ed.D.
Director, Alcoa City Schools



South-Doyle High School

2020 Tipton Station Road Knoxville, TN 37920

Phone: 865.577.4475 Fax: 865.577.4540

www.southdoylehs.knoxschools.org

TIM BERRY

Executive Principal

CHARLENE LEWIS

SLC Principal (Grade 12)

WILLIAM BALDWIN

SLC Principal (Grade 11)

MELISSA STOWERS

SLC Principal (Grade 10)

BYRON BOOKER

Freshman Academy Principal

CLARK DUNCAN

Principal of CTE
Safety and Operations

June 16, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Director Murphy;

The administration at South Doyle High School wishes to offer our support for the LEAP 2.0 Grant being submitted by the Tennessee College of Applied Technology Knoxville. Our school has had dual enrolled students with your college for the past three years and is excited about the possibility of a CTE opening in the Advanced Manufacturing field.

I have reviewed your grant proposal to purchase "trainers" that are compatible with the equipment used in regional industries. The fact that students dual enrolled in the Industrial Maintenance/ Mechatronics program on our campus will be able to articulate hours both to TCAT Knoxville and Pellissippi State Community College is a great value to our students. We fully support the curriculum that not only includes PLCs, robotics, hydraulics, and pneumatics training, but also provides nationally recognized certifications in Certified Production Technician, NC3, and OSHA 10. The worker ethics portion of the curriculum is what manufacturers also look for in potential employees.

If TCAT Knoxville is successful in securing the LEAP 2.0 Grant funds, we project we would dual enroll 20 students per semester once the program is established. Our local industrial partners are excited about South Doyle High School offering this program and the potential of our graduates participating in an internship program. All agreements are in place between Knox County Schools and the Tennessee College of Applied Technology Knoxville to offer the program as soon as the grant is funded and equipment can be purchased. Our staff will work with TCAT Knoxville and local industries to develop the internship opportunities for our dual enrolled students. We are happy to part of the steering committee for the grant.

Please feel free to contact me if you have questions.

Sincerely,

Tim Berry



SL Tennessee, LLC

312 Frank Diggs Dr, Clinton, TN 37716 TEL +865.457.8511 FAX +865.457.0475
www.sl-america.com

June 16, 2016

Mr. Dwight Murphy, Director

Tennessee College of Applied Technology Knoxville

1100 Liberty Street

Knoxville, TN 37919

Dear Mr. Murphy:

SL Tennessee is fully supportive of the LEAP 2.0 Grant being submitted by the Tennessee College of Applied Technology Knoxville. SL has committed, along with other Anderson County industries, to retrofit the building that will temporarily host TCAT programs in Anderson County. SL Tennessee has also committed to donate land adjacent to our company in the industrial park for a new permanent Center for Higher Education for TCAT Knoxville and Roane State Community College to use for skills' training.

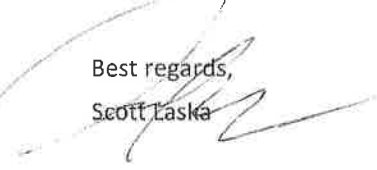
The Industrial Maintenance/Mechatronics "trainers" that are requested in this grant are compatible with the manufacturing machinery we use in our facility today. We are experiencing a huge "skills gap" and the "trainers" requested to allow TCAT Knoxville to offer dual enrollment opportunities in Industrial Maintenance/Mechatronics would be very beneficial to the companies in this region.

SL Tennessee is excited to have a training facility being developed by TCAT Knoxville to serve Anderson County. We also support the part of the LEAP 2.0 Grant that would provide work-based learning opportunities for potential employees. We would commit to partnering with TCAT for up to 10 interns and 10 co-op students over a 24-month period. We would commit to one-half of their beginning wages if the grant would supply the other half for a maximum expenditure of \$1,500 per participant. This will allow our company to work with the high school programs and the post-secondary program at TCAT Knoxville to start a pipeline of high skilled employees for SL Tennessee. Our company is expanding and we need skilled employees very badly. The LEAP 2.0 funding would assist local manufacturers in filling their employment needs.

Please contact me if you have questions.

Best regards,

Scott Laska





3600 Papermill Drive – P.O. Box 10048
Knoxville, Tennessee 37939
(865) 523-1129 (phone) – (865) 637-6214 (fax)

July 19, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

ShoffnerKalthoff Mechanical Electrical Service is in support of the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. Partnering with your college provides our organization and employees with needed training for meeting our customer demands, and addresses the huge skills gap that exists in Knoxville. We appreciate the skills and certification training presently offered at the TCAT Knoxville campus for our incumbent workers and look to attract more graduates from your program.

Our company would commit to provide opportunities for up to 4 co-ops and or internship students over a 24-month period that would consist of an 8-week work experience. This is a win/win situation for SKMES by introducing the career opportunities in our industry and our company to these students while we will be receiving up to \$1,500 reimbursement for their wages from the LEAP 2.0 Grant. This allows recent high school graduates to see what is available in the high demand and high wage jobs in our region as well as TCAT students near the end of their post-secondary training.

In closing, again we appreciate the special industry training being provided by TCAT Knoxville and look forward to your ability to expand training with funding from the LEAP 2.0 Grant. If you have questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "David Dugger", with a long horizontal line extending to the right.

Mr. David Dugger
President & CEO
ShoffnerKalthoff Mechanical Electrical Service
3600 Papermill Dr.
Knoxville, TN 37909
DDugger@skmes.com
(865)523-1129



July 5, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

Mag USA wants to go on record in support of the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville.

We are anxious to see the new TCAT Anderson County campus operational and are appreciative that you are adding Industrial Maintenance/Mechatronics to the curriculum. We have a very difficult time finding entry level people with Industrial Maintenance/Mechatronics skills. We also support the Advanced Manufacturing high school programs that will be offered at Oak Ridge High School and Anderson County Career and Technical Center. In addition, the OSHA 10 certification and especially the Worker Ethics training are essential for new hires.

In closing, MAG USA would be very interested in participating in the co-op and intern programs as stated in the grant. Over a 24-month period our company would commit to work with up to 4 interns and 2 co-op students. We realize the work based learning is eight weeks per student and we would be reimbursed up to \$1,500 or one-half of their wages. We have a tremendous unmet demand in employee manufacturing skills and feel the program outlined in this grant will allow our company to begin to address our skills' gap.

Best regards,

Mike Mitchell
General Manager
MAG USA Inc.
105 Matthew Warren Dr
Clinton TN 37716
Phone: (865) 259-0109

105 Matthew Warren Drive, Clinton TN 37716



INTERSTATE
MECHANICAL
CONTRACTORS INC.

3200 Henson Road
P.O. Box 50610
Knoxville, TN 37950
(865) 588-0180
www.interstatemechanical.com

July 21, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Sir:

Interstate Mechanical wishes to go on record in support of the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. Like most companies in this region, we are struggling to find and keep skilled employees. We have had a long working relationship with TCAT Knoxville and find their graduates to be well adapted to go into the work place.

The TCAT Knoxville campus's only restriction is their inability to grow, and the fact you are at full capacity. The LEAP 2.0 Grant would allow you to expand training into the high schools as well as equip a new satellite campus with the most state-of-the-art PLCs, pneumatics, hydraulics, and robotics trainers. Our company is very supportive of the work based learning portion of the grant and would commit to employ up to 5 co-op students and 5 student interns for an eight-week training session if the grant is funded. We understand that the LEAP 2.0 Grant would reimburse up to \$1,500 for the salaries paid those students and that our company would have complete control of which students are involved.

Again, we want to offer our company's support for TCAT Knoxville and the LEAP 2.0 Grant being submitted.

Best regards,

Angela Whitley, SPHR, SHRM-SCP
Human Resources Manager



July 19, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

Cherokee Millwright wishes to express our support for the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville.

Our ongoing incumbent worker training with TCAT Knoxville is working well for our company and we hope the LEAP 2.0 Grant is funded to not only grow your College's ability to offer special industry training like you are providing for Cherokee, but also provide more skilled graduates to fill the huge skills' gap in the region. All companies in this region are finding it difficult to find workers as the economies in Blount, Anderson, and Knox Counties continue to grow. Our company is very supportive of the OSHA 10, forklift, and Worker Ethics certifications that would be in the curriculum, both at the high schools and at the college classes. We are excited that TCAT Knoxville will be providing dual enrollment opportunities in Advanced Manufacturing at the four high schools located in Blount County.

Our company is happy to support the work based learning portion of the grant. We would commit to have up to 10 co-op students and 5 interns to work in our company over a 24-month period. We believe this work experience will not only provide excellent potential employees for Cherokee, but will also get the students ready for other available manufacturing jobs. The fact that the students will be paid and receive credit for the TCAT at the same time will be a great incentive.

If you have questions, please feel free to contact me.

Best regards,

Ty McBrayer, HR Generalist

Cherokee Millwright and Mechanical

tmcbrayer@cherokee-millwright.com

Cell: 865-661-0852

Office: 865-724-2167

Fax: 865-379-1551

geared
for success



July 21, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Sir:

BHS wishes to support the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. Like most companies in this region, we are struggling to find and keep skilled employees. We are very impressed by the industrial training offered at your College.

The TCAT Knoxville campus's only restriction is their inability to grow, and the fact you are at full capacity. The LEAP 2.0 Grant would allow you to expand training into the high schools as well as equip a new satellite campus with the most state-of-the-art PLCs, pneumatics, hydraulics, and robotics trainers. Our company is very supportive of the work based learning portion of the grant and would commit to employ up to 2 co-op students and 2 student interns for an eight-week training session if the grant is funded. We understand that the LEAP 2.0 Grant would reimburse up to \$1,500 for the salaries paid those students and that our company would have complete control of which students are involved.

Again, we want to offer our company's support for TCAT Knoxville and the LEAP 2.0 Grant being submitted.

Best regards,

Karen Steed
Director of Human Resources
BHS Corrugated North America, Inc.

BHS Corrugated – North America, Inc.
9103 Yellow Brick Road, Suite N
Baltimore, MD 21237
United States of America
Telephone: 410-574-1550
Fax: 410-574-4525 (Parts/Service)
Fax: 410-574-4571 (Sales)
www.bhs-world.com

BHS Corrugated – North America, Inc. / Knoxville
2431 Bertelkamp Lane
Knoxville, TN 37931
United States of America
Telephone: 865-828-5702
Fax: 865-828-3803

Better. Across the board.

June 16, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

Aisin fully supports the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville.

We are working with other Anderson County industries to retrofit a building in Clinton, Tennessee, to be used as a training facility by TCAT Knoxville, and we have made a cash donation plus committed to providing in-kind labor to help complete the project. The Industrial Maintenance/Mechatronics "trainers" that are requested in the LEAP 2.0 Grant application would offer the skills training we desperately need in potential employees as our company continues to expand.

We are also supportive of the Advanced Manufacturing trainers that would be placed at Oak Ridge High School and Anderson County Career and Technical Center that would complement the equipment that is located at the new TCAT Anderson County Center and is compatible with what we are using at Aisin. We fully support the integration of national certifications in OSHA 10, Certified Production Technician, and NC3 into all of the training programs. The inclusion of worker ethics training into both the high school and post-secondary curricula is much needed training for potential employees.

Aisin is supportive of the work-based learning components for interns and co-op opportunities. We would participate with TCAT Knoxville with up to 10 co-op students and 10 intern students over a 24 month period. We understand that with 8 weeks of employee on-the-job training the total commitment for half of the student's salary is a maximum \$1,500 per student. The work-based learning component allows students to get a real "feel" for our operation and allows the TCAT to work on the skills where the student may be weak on the days they are at the TCAT campus.

In closing, the Tennessee College of Applied Technology Anderson County campus is critical for the companies in our region to fill the ever growing skills' gap. The LEAP 2.0 Grant application is a huge step in assisting in the purchase of the equipment for the new facility that we hope to see opened in September 2016 – January 2017. If you have questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Robin Watson". The signature is fluid and cursive, with the first name "Robin" and last name "Watson" clearly distinguishable.

Robin Watson
Human Resource Manager
Aisin Automotive Casting Tennessee, Inc.



July 15, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

GerdaU wishes to offer our company's support for the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville.

Our company has had an apprenticeship training program at TCAT Knoxville for the past year. The only negative thing we can say is that your College is over capacity and scheduling our training needs has sometimes been difficult. We are in need of skilled manufacturing employees that are trained in welding, hydraulics, pneumatics, and PLCs. The curriculum that is offered at TCAT Knoxville is preparing a skilled workforce for companies such as ours. We support the secondary classes that you are proposing for dual enrollment at regional high schools. This allows the students to get started while in high school in Advanced Manufacturing training. We also support the OSHA 10 training, forklift certification, and Worker Ethics training that is in your curriculum.

In closing, like most area companies, we are finding it difficult to find employees to meet our growing needs. We would like to work with your College to potentially take students for work based learning experiences at our company. We realize the Grant would reimburse up to \$1,500 of their salary for an eight-week training period. They would be getting credit at the College and work experience at our company and attaining skills needed by manufacturers throughout the region.

If you have questions, please feel free to contact me.

Best regards,

A handwritten signature in blue ink, appearing to read 'DR', with a long horizontal flourish extending to the right.

Damien Rose, PHR
Human Resources Generalist
GerdaU – Knoxville Mill
865-227-1778



DENSO MANUFACTURING TENNESSEE, INC.
1720 Robert C. Jackson Drive
Maryville, Tennessee 37801

July 21, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

DENSO has had a long term partnership with the Tennessee College of Applied Technology Knoxville in supplying skilled employees as well as apprenticeship training for our incumbent workers. It is a pleasure for our company to support the LEAP 2.0 Grant application being submitted by your College. Our company is recently donated a 6-Axis DENSO robot to your college with a value of \$ 47,000. We are looking at opportunities to provide additional robots. Updating the training equipment at the TCAT is essential to assure your students are receiving the newest possible skills' training.

We have reviewed the Industrial Maintenance and Welding trainers that will be purchased for your new satellite campus and realize it will offer skills necessary for industries such as ours. This equipment will also expand TCAT Knoxville's capacity to not only prepare more skilled graduates, but also allow companies such as ours to do special industry training for our existing work force. We have always been happy with TCAT's ability to train our employees. The limiting factor has been your college's capacity issues and long waiting lists.

We are excited that you are looking to purchase Advanced Manufacturing "trainers" for four Blount County High Schools (William Blount, Maryville, Heritage, and Alcoa) that will allow you to offer Industrial Maintenance/ Mechatronics at the secondary level. It is also important that the skills acquired at the high school level can be articulated into credit at TCAT Knoxville and/or Pellissippi State Community College. The worker ethics, Certified Production Technician, OSHA 10, and NC3 certifications will also be helpful in students acquiring positions at manufacturing facilities.

We are supportive of the work based learning component in your LEAP 2.0 Grant application. We would commit to work with your college to investigate intern and co-op opportunities in a 24 month period. This will allow our company to see the students' abilities and skill levels on an 8-week trial basis. This program allows TCAT Knoxville to work with the students the day of the week they are on your campus to work on their skill weaknesses that we identify in the four days they are at our plant.

In closing, we support the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville and look forward to working with your college to make this a successful program, and even more, a resource for Denso to recruit highly skilled employees.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Booker", is written over a horizontal line.

Bob Booker
Senior Manager, Corporate Service Division
DENSO Manufacturing Tennessee, Inc.



Science.
Applied to Life.™

Jason Leslie
3M Clinton
400 JD Yarnell Industrial Parkway
Clinton, TN 37716

July 14th, 2016

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

The 3M Company is one of Anderson County's newest manufacturing companies. We are excited about the ability to partner with the Tennessee College of Applied Technology Knoxville and want to offer our enthusiastic support for the LEAP 2.0 Grant application being submitted by your college.

After reviewing the equipment requested in the Grant to be placed at the new TCAT being located in Anderson County, we believe it will assist companies such as ours in finding skilled employees. We are ramping up our manufacturing site and are very supportive of the dual enrolled Industrial Maintenance/Mechatronics program being developed at Oak Ridge High School and Anderson County Career and Technical Center. We are pleased with the fact that secondary students will be offered national certifications such as OSHA 10, Certified Production Technician, and NC3. In addition, the worker ethics portion of the curriculum is essential for today's workforce.

In closing, 3M is committed to assisting in the development of the training facility TCAT Knoxville is building in Anderson County. We are very excited about the internship and co-op program being developed and look forward to an opportunity to place highly qualified students.

Again, we support the Grant application and look forward to a long positive working relationship with TCAT Knoxville.

Sincerely,

Jason Leslie
3M Plant Manager



**East Tennessee Human Resource Agency,
Inc.**

Administrative Office
9111 Cross Park Drive, Suite D-100
Knoxville, Tennessee 37923
Voice (865) 691-2551
Fax (865) 531-7216
TDD (866) 868-3830

www.ethra.org

July 22, 2016

Workforce Development

728-E Emory Valley Road
Oak Ridge, Tennessee 37830
Voice (865) 590-1052
Fax (865) 590-1081

Mr. Dwight Murphy, Director
Tennessee College of Applied Technology Knoxville
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

LWDA 4 would like to partner on the LEAP 2.0 Grant application being submitted by the Tennessee College of Applied Technology Knoxville. Our service area includes Blount and Anderson Counties that will receive equipment and work based learning dollars from the Grant. We would commit to participating, as funds allow, for up to 16 OJT opportunities to be awarded in Blount and Anderson Counties if your college is successful in securing the grant.

Our staff is committed to assisting TCAT Knoxville in recruiting adults, dislocated workers, and out of school youth to enroll in programs of study offered by your College. As always, we will assist LWDA 4 qualified students enrolled in the post-secondary programs that need financial assistance in order to be successful in their training. In many cases, we provide last case dollars and would be able to assist students with the cost of certification tests. Our staff will assist TCAT Knoxville with developing the work based learning intern and co-op programs with industries in our service area.

I will be more than happy to serve on the steering committee and assist in implementation of the Grant. If you have questions, please do not hesitate to contact me.

Sincerely,

Chris Tiller
ETHRA Workforce Development
LWDA 4 Director



July 18, 2016

Dwight Murphy, Director
Tennessee College of Applied Technology
1100 Liberty Street
Knoxville, TN 37919

Dear Mr. Murphy:

Workforce Connections and the Workforce Board for Local Workforce Development Area 3 are pleased to partner with the Tennessee College of Applied Technology and area employers in applying for a LEAP 2.0 grant for our region.

Workforce Connections' current partnerships with TCAT, the Knoxville Chamber, local education entities, and area employers include efforts to expand and improve the base of skilled workers to address business needs in our region. We are happy to collaborate with this initiative to improve our pipeline of skilled workers through increased Work Based Learning opportunities in our region.

As a partner in this effort, we commit to serving on the project's steering committee, working with TCAT and industry to identify and create work-based learning internships and co-op opportunities, and identifying dislocated workers and out of school youth who may benefit from these learning opportunities. Additionally, we will coordinate to provide on-the-job training resources to help support work based learning for eligible individuals.

With an aging workforce and shrinking labor force participation, the local Workforce Board notes the need for collaborative efforts to expand our regional pipeline of workers. Initiatives such as this LEAP effort will contribute to Tennessee's achieving the Drive to 55 as well as ensuring adequate trained workers for our region's economy.

Sincerely,

Windie Wilson
Director



Department of
**Labor & Workforce
Development**

Adult Education

July 25, 2016

Mr. Dwight Murphy, Director
TCAT Knoxville
1100 Liberty Street
Knoxville, TN 37919

This letter is in reference to the support of the LEAPS 2.0 grant. Adult Education in Knox County supports this grant. Our goal is to enroll forty (40) HSE (high school equivalency) graduates in post secondary programs at TCAT Knoxville. As part of adult education's *Exit-With-A-Plan*, students will be given the opportunity to learn more about the programs at TCAT Knoxville.

Sincerely,

A handwritten signature in black ink that reads "Pam" with a stylized flourish at the end.

Pam Stubbs
Adult Education Coordinator

Tennessee's **HOT** Careers to 2022

These careers have it all!

Personal Skills and Abilities

Personal Skills and Abilities

- advanced skills required
- moderate skills required

Job Title	2012-2022 Average Annual Openings	2013 Median Salary	Personal Skills: Reading (English)	Math Skills	Service Orientation	Persuasion Skills	Science Skills	Computer Programming Skills	Repairing Skills	Artist/Creative Ability
Apprenticeship										
Carpenters	285	\$34,285	○	○	○	○			○	A
Electricians	385	\$44,529	●	●	○	○	○		●	
Some college, no degree										
Computer User Support Specialists	255	\$41,189	●	○	●	○	○	○		
Teacher Assistants	770	\$19,493	●	○	●	●				A
Work experience in a related occupation										
Executive Secretaries and Executive Administrative Assistants	220	\$39,657	●	○	●	●		○		
First-Line Supervisors of Construction Trades and Extraction Workers	210	\$48,552	●	○	●	●	○			
First-Line Supervisors of Food Preparation and Serving Workers	785	\$25,793	●	●	●	●				
First-Line Supervisors of Housekeeping and Janitorial Workers	175	\$31,528	●	○	●	●				
First-Line Supervisors of Mechanics, Installers, and Repairers	320	\$55,246	●	●	●	●			○	
First-Line Supervisors of Office and Administrative Support Workers	1,275	\$44,656	●	○	●	●				
First-Line Supervisors of Retail Sales Workers	975	\$35,406	●	●	●	●				
Food Service Managers	285	\$37,612	●	○	●	●	○			
Long-term on-the-job training										
Industrial Machinery Mechanics	315	\$52,270	○	○	○	○	○	○	●	
Machinists	320	\$39,599	●	○	○	○			○	
Maintenance and Repair Workers, General	850	\$35,250	●	○	○	○			●	
Musicians and Singers	325	Confidential	○		○	○				A
Moderate-term on-the-job training										
Bill and Account Collectors	745	\$29,211	●	○	●	●				
Bookkeeping, Accounting, and Auditing Clerks	810	\$32,867	●	●	○	○				
Inspectors, Testers, Sorters, Samplers, and Weighers	375	\$31,729	●	○		○				
Insurance Sales Agents	220	\$40,476	●	○	●	●				
Medical Secretaries	265	\$28,177	●	○	●	○				
Operating Engineers and Other Construction Equipment Operators	180	\$34,866	○	○	○	○			○	
Parts Salespersons	180	\$29,040	●	○	●	●				
Payroll and Timekeeping Clerks	165	\$35,572	●	○	○	○				
Pharmacy Technicians	430	\$28,279	●	●	●	○	○			
Production, Planning, and Expediting Clerks	260	\$43,250	●	○	○	○				
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	675	\$49,297	●	○	●	●				
Team Assemblers	1,430	\$30,358	○	○	○	○				
Welders, Cutters, Solderers, and Brazers	350	\$34,717	●	○	○	○			○	

✓ Positive Job Growth ✓ At least 160 expected annual job openings

For more information, please contact Martha Wettemann at (615) 741-2284 or Fax: (615) 532-9434

Email: Martha.Wettemann@tn.gov

Tennessee's **HOT** Careers to 2022

These careers have it all!

Personal Skills and Abilities

Personal Skills and Abilities

- advanced skills required
- moderate skills required

Job Title	2012-2022 Average Annual Openings	2013 Median Salary	Personal Skills: Reading (English)	Math Skills	Service Orientation	Persuasion Skills	Science Skills	Computer Programming Skills	Repairing Skills	Artist/Creative Ability
Doctoral or professional degree										
Lawyers	380	\$93,623	●	○	●	●				
Pharmacists	290	\$122,475	●	●	●	●	●			
Physical Therapists	220	\$80,460	●	○	●	●	●			
Physicians and Surgeons, All Other	350	\$187,302	●	○	●	●	●			
Bachelor's degree										
Accountants and Auditors	1,130	\$57,666	●	●	○	○				
Clergy	605	\$41,748	●	○	●	●				
Computer and Information Systems Managers	165	\$102,042	●	○	●	●	○	○		
Computer Programmers	180	\$75,120	●	●	○	○	○	●		A
Computer Systems Analysts	345	\$75,431	●	●	●	●	○	●		
Construction Managers	265	\$71,911	●	●	○	●	○			
Elementary School Teachers, Except Special Education	1,190	\$46,344	●	●	●	●	○			A
Financial Managers	395	\$87,308	●	●	●	●				
Human Resources Specialists	210	\$50,324	●	○	●	●				
Industrial Engineers	205	\$80,257	●	●	○	●				
Kindergarten Teachers, Except Special Education	235	\$46,160	●	○	●	●				A
Management Analysts	365	\$70,524	●	○	○	●	○			A
Market Research Analysts and Marketing Specialists	280	\$49,737	●	●	○	●	○	○		A
Middle School Teachers, Except Special and Career/Technical Education	490	\$46,573	●	○	●	●				A
Network and Computer Systems Administrators	185	\$62,964	●	○	○	○	○	●	○	A
Sales Managers	255	\$84,423	●	●	●	●				
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	320	\$68,461	●	○	●	●				
Secondary School Teachers, Except Special and Career/Technical Education	705	\$47,778	●	●	●	●	○			A
Training and Development Specialists	165	\$56,269	●	○	●	●	○			
Associate's degree										
Dental Hygienists	190	\$64,216	●		●	●	○			
Medical and Clinical Laboratory Technicians	305	\$35,074	●	○	○	○	●			
Paralegals and Legal Assistants	315	\$42,807	●		●	○				
Preschool Teachers, Except Special Education	490	\$22,286	●	○	●	●				A
Postsecondary non-degree award										
Emergency Medical Technicians and Paramedics	405	\$29,291	○		●	○				
Firefighters	185	\$37,191	●	○	●	●	○			
First-Line Supervisors of Production and Operating Workers	260	\$51,147	●	○	○	●				
Heavy and Tractor-Trailer Truck Drivers	1,790	\$38,130	●	○	○	○			○	
Licensed Practical and Licensed Vocational Nurses	985	\$35,821	●	○	●	●	●			
Telecommunications Equipment Installers and Repairers, Except Line Installers	185	\$42,810	●	○	●	○	○	○	●	

(continued on back)

✓ Positive Job Growth ✓ At least 160 expected annual job openings

www.Jobs4tn.gov/



Tennessee Department of Labor • Burns Phillips, Commissioner
tn.gov/workforce

LWIA 3: Knox County



Careers to 2022

These careers have it all!

Personal Skills and Abilities

- advanced skills required
- moderate skills required

Job Title	Personal Skills and Abilities									
	2012-2020 Average Annual Openings	2012 Median Salary	Personal Skills: Reading (English)	Math	Service Orientation	Persuasion Skills	Science Skills	Computer Programming Skills	Repairing Skills	Artist/Creative Ability
Doctoral or professional degree										
Lawyers	45	\$112,735	●	○	●	●				
Physicians and Surgeons, All Other	40	\$231,907	●	○	●	●	●			
Health Specialties Teachers, Postsecondary	35	\$68,108	●	○	●	●	●			A
Bachelor's degree										
Clergy	250	\$47,914	●	○	●					
Directors, Religious Activities and Education	155	#N/A	●	○	●	●	○			
Accountants and Auditors	90	\$61,739	●	●	○	●	○			
Elementary School Teachers, Except Special Education	85	\$46,989	●	●	●	●	○			A
Financial Managers	40	\$110,310	●	●	●	●				
Secondary School Teachers, Except Special/ Career Ed	40	\$47,807	●	●	●	●	○			A
Management Analysts	35	\$102,984	●	○	○	●	○			A
Middle School Teachers, Except Special/ Career Ed	30	\$46,115	●	○	●	●				A
Sales Representatives, Wholesale and Manufacturing	30	\$79,493	●	○	●	●				
Associate's degree										
Preschool Teachers, Except Special Education	55	\$24,122	●	○	●	●				A
Paralegals and Legal Assistants	45	\$52,058	●		●	○				
Postsecondary non-degree award										
Heavy and Tractor-Trailer Truck Drivers	170	\$43,733	●	○	○	○			○	
Licensed Practical and Licensed Vocational Nurses	80	\$36,430	●	○	●	●	○			
Medical Assistants	70	\$29,081	●	○	●	●	○			
Emergency Medical Technicians and Paramedics	65	\$28,551	●	○	●	●	●			
Some college, no degree										
Teacher Assistants	70	\$19,224	●	○	●	●				A
Computer Support Specialists	30	\$43,708	●	○	●	●	○	○	○	
High school diploma or equivalent										
Customer Service Representatives	280	\$28,531	●	○	●	●				
Office Clerks, General	215	\$28,482	●	○	●	●				
First-Line Supervisors of Office and Administrative Workers	155	\$50,324	●	○	●	●				
Childcare Workers	150	\$19,499	●	○	●	●				
Secretaries and Administrative Assistants, Except Legal, Medical	145	\$30,742	●	○	●	●				
Bill and Account Collectors	115	\$26,320	●	○	●	●				
Receptionists and Information Clerks	110	\$26,712	●	○	●	●				
Bookkeeping, Accounting, and Auditing Clerks	110	\$34,751	●	●	○	●				
First-Line Supervisors of Food Preparation and Service Workers	90	\$28,728	●	●	●	●				
Maintenance and Repair Workers, General	85	\$34,918	●	○	○	○			●	
First-Line Supervisors of Retail Sales Workers	85	\$38,523	●	●	●	●				

(continued on other side)

✓ Positive Job Growth
✓ At least 30 expected annual job openings

LWIA 3: Knox County



Careers to 2022

These careers have it all!

Personal Skills and Abilities

- advanced skills required
- moderate skills required

Personal Skills and Abilities	Personal Skills and Abilities									
	2012-2020 Average Annual Openings	2012 Median Salary	Personal Skills: Reading (English)	Math	Service Orientation	Persuasion Skills	Science Skills	Computer Programming Skills	Repairing Skills	Artist/Creative Ability
Personal Skills and Abilities										
● advanced skills required										
○ moderate skills required										
Job Title										
High school diploma or equivalent										
Sales Representatives, Wholesale and Manufacturing	75	\$56,820	●	○	●	●				
Electricians	60	\$41,739	●	●	○	○	○		●	
Billing and Posting Clerks	55	\$30,565	●	○	●	●		○		
Team Assemblers	55	\$30,839	○	○	○	○				
Sales Representatives, Services, All Other	45	\$52,545	●	○	●	●				
Automotive Service Technicians and Mechanics	45	\$37,636	●	○	○	○	○		●	
Tellers	40	\$24,960	●	●	●	●				
Pharmacy Technicians	35	\$27,700	●	●	●	●	○			
Hotel, Motel, and Resort Desk Clerks	35	\$18,286	●	○	●	●				
Carpenters	35	\$35,351	○	○	○	●			○	A
Shipping, Receiving, and Traffic Clerks	35	\$27,603	●	○	○	○				
Executive Secretaries and Executive Administrative Assistants	35	\$44,279	●	○	●	●		○		
Tree Trimmers and Pruners	60	#N/A	○		○	○				
Supervisors of Housekeeping and Janitorial Workers	30	\$33,139	●	○	●	●				
Supervisors of Mechanics, Installers, and Repairers	30	\$54,466	●	●	●	●			○	
Telecommunications Line Installers and Repairers	30	\$34,119	●	○	○	●	○		○	

Positive Job Growth

100%

90%

80%

70%

60%

50%

40%

30%

20%

10%

0%

✓ **Positive Job Growth**
✓ **At least 30 expected annual job openings**

For more information, please contact Martha Wettemann at (615) 741-2284 or Fax: (615)532-9434

Email: Martha.Wettemann@tn.gov

LWIA 4: Anderson, Blount, Campbell, Cumberland,
Loudon, Morgan, Monroe, Roane, and Scott counties



Careers to 2022

These careers have it all!

Personal Skills and Abilities

- advanced skills required
- moderate skills required

Job Title	Personal Skills and Abilities														
	2012-2022 Average Annual Openings	2013 Median Salary	Personal Skills: Reading (English)					Service Orientation		Persuasion Skills		Science Skills	Computer Programming Skills	Repairing Skills	Artist/Creative Ability
			Math												
Personal Skills and Abilities															
● advanced skills required															
○ moderate skills required															

(continued on the back)

✓ Positive Job Growth
✓ At least 15 expected annual job openings



Tennessee Department of Labor • Burns Phillips, Commissioner
tn.gov/workforce

www.Jobs4tn.gov/

LWIA 4: Anderson, Blount, Campbell, Cumberland,
Loudon, Morgan, Monroe, Roane, and Scott counties



Careers to 2022

These careers have it all!

Personal Skills and Abilities

- advanced skills required
- moderate skills required

Job Title	Personal Skills and Abilities									
	2012-2022 Average Annual Openings	2013 Median Salary	Personal Skills: Reading (English)	Math	Service Orientation	Persuasion Skills	Science Skills	Computer Programming Skills	Repairing Skills	Artist/Creative Ability
High school diploma or equivalent										
Billing and Posting Clerks	25	\$29,506	●	○	●	●		○		
Bill and Account Collectors	25	\$34,054	●	○	●	●				
Inspectors, Testers, Sorters, Samplers, and Weighers	25	\$39,124	●	○		○				
Locksmiths and Safe Repairers	20	#N/A	●	○	○	○			●	
Driver/Sales Workers	20	\$28,001	●	●	●	●				
Supervisors of Mechanics, Installers, and Repairers	20	\$63,758	●	●	●	●		○		
Medical Secretaries	15	\$27,887	●	○	●	●				
Hotel, Motel, and Resort Desk Clerks	15	\$20,552	●	○	●	●				
Supervisors of Construction and Extraction Workers	15	\$52,836	●	○	●	●	○			
Correctional Officers and Jailers	15	\$28,920	●	○	●	●				
Food Service Managers	15	\$40,924	●	○	●	●	○			

✓ **High Demand**

✓ **Positive Job Growth**

✓ **At least 15 expected annual job openings**

For more information, please contact Martha Wettemann at (615) 741-2284 or Fax: (615)532-9434

Email: Martha.Wettemann@tn.gov

ADVANCED MANUFACTURING

Awards

Latest Updates

Newsroom

TENNESSEE COMBINES A HISTORY OF INNOVATION WITH A SKILLED
WORKFORCE AND A BUSINESS-FRIENDLY GOVERNMENT TO MEET TODAY'S
HIGH-TECH MANUFACTURING DEMANDS.

Upcoming Events

Staff

Contact

Manufacturing today is a high-tech endeavor that requires innovative ideas and the flexibility to use those innovations in both the product and the process. Combine the power of technology with our skilled and stable workforce, and you'll have a competitive advantage in a diversified market.

That's why Tennessee is a high-tech hotbed, with some of the most sophisticated manufacturing facilities in the world located right here.

Our commitment to innovation has landed Tennessee at the forefront of today's manufacturing renaissance. Advanced manufacturing touches everything we produce here, from start-ups to brands like Beretta USA—the world's oldest manufacturer.

To stay competitive, your company needs a steady pipeline of qualified workers who can excel in this new manufacturing environment. Tennessee leads the nation in developing and maintaining an educated, well-trained workforce.

Recognizing that a skilled workforce is crucial, Tennessee collaborates with private and public colleges and universities to create top tier programs designed to support the business community. Tennessee launched the Labor Education Alignment Program (LEAP), focused on increasing opportunities for post-secondary education compatible with workplace needs. Tennessee Promise—guaranteed last-dollar scholarships for all students for two years of community college—is another part of Governor Haslam's Drive to 55, a push to increase the number of Tennesseans with post-secondary credentials to 55 percent by the year 2025.

Tennessee believes in the power of manufacturing. Over the last three years, Tennessee has posted the second largest percentage increase in the Southeast in manufacturing GDP, which reached \$48.1 billion in 2014. That's 16 percent of the state's total GDP.

Tennessee exports more than \$31 billion in manufactured goods annually. Our largest categories of exported products include: transportation equipment, computer and electronic

products, chemicals, miscellaneous manufactured commodities, and machinery, except electrical. These five sectors account for 76 percent of the state's manufacturing exports.

Advanced manufacturing job creation in Tennessee far outpaces national growth, at 27.1% job growth in Tennessee compared to 8.7% nationally from 2010 to 2015.

Tennessee is the right place at the right time for your manufacturing needs. An ideal location, low cost of doing business and competitive wage mean a more efficient operation and increased revenues.

\$14.6 billion

capital investment in recent manufacturing projects.